REMARKS

Entry of the foregoing, reexamination and reconsideration of the subject application are respectfully requested in light of the amendments above and the comments which follow.

As correctly noted in the Office Action Summary, claims 24-28 were pending. By the present response, claims 24 has been amended, claim 25 canceled, and claims 37-42 have been added. Thus, upon entry of the present response, claims 24, 26-28 and 37-42 are pending and await further consideration on the merits.

Support for the foregoing amendments can be found, for example, in at least the following locations in the original disclosure: page 10, lines 19-21; page 11, lines 12-14 and 24-26; page 12, lines 10-11, 15-16, 19-21 and 24-25; and page 13, lines 1-4 and 8-10.

Entry of this amendment is appropriate pursuant to 37 C.F.R. §1.116 for at least the following reasons: (1) the amendments clearly place the application in condition for allowance; (2) do not require a new search; and (3) simplify the issues for purposes of an appeal.

CLAIM REJECTIONS UNDER 35 U.S.C. §102

Claims 24-26 and 28 stand rejected under 35 U.S.C. §102(a) as being anticipated by U.S. Patent No. 6,322,728 B1 (hereafter "*Brodkin et al.*") on the grounds set forth in paragraph 3 of the Official Action. For at least the reasons noted below, this rejection should be withdrawn.

The present invention relates to a method for manufacturing dental restorations, and the dental restorations so produced.

In conventional dental restorations it is often difficult to achieve uniform physical properties throughout the restoration which are at an acceptable level. Moreover, conventional fabrication techniques often involve manual blending of powders, liquids and dispersants which may not provide the optimal homogeneity for the mixture.

According to the present invention, techniques are provided which result in high strength ceramic restorations which are compatible with a wide range of cost-effective ceramic materials. The dental restorations so produced possess uniform physical properties throughout, and are produced by a simplified process of manufacturing that is more user-friendly than conventional techniques.

A process performed according to the principles of the present invention is set forth in amended claim 24. Amended claim 24 recites:

> *24. A process for fabricating a dental material comprising:*
> *(a) mixing ceramic powder and one or more media together to achieve homogeneity throughout the mixture;*
> *(b) forming a feedstock from the mixture;*
> *(c) heating the feedstock to a molten state;*
> *(d) dispensing the molten feedstock from a dispensing apparatus to form a layer of dental material;*
> *(e) solidifying the layer of dental material;and*
> *(f) repeating (d)-(e) a plurality of times.*

Brodkin et al. discloses the mass production of dental restorations by a solid free-form fabrication method. It is alleged in paragraph 6 of the Official Action that *Brodkin et al.* "specifically teach forming a mixture of ceramic and binder that is then dispensed from an apparatus onto a platform to form a dental material." Column 9, lines 14-41 of *Brodkin et al.* is cited as providing the above quoted teaching.

However, as evident from the above, amended claim 24 requires much more than a mere "mixing of ceramic and binder." The above-cited portion of the *Brodkin*

et al. disclosure fails to disclose the method as now defined in amended claim 24. thus, *Brodkin et al.* clearly fails to anticipate the subject matter of amended claim 24. Reconsideration and withdrawal of the rejection is respectfully requested.

Claims 26 and 28 depend from claim 24. Thus, since claim 24 is not anticipated, claims 26 and 28, which contain all of the limitations recited in claim 24, are also distinguishable over *Brodkin et al.*

CLAIM REJECTIONS UNDER 35 U.S.C. §103

Claim 27 stands rejected under 35 U.S.C. §103(a) as being unpatentable over *Brodkin et al.* in view of U.S. Patent No. to 6,063,314 (hereafter "*Chadwick*") on the grounds set forth in paragraph 5 of the Official Action. For at least the reasons noted below, this rejection should be withdrawn.

Chadwick discloses a method for accurate replication of shaped articles using sinterable powders. As set forth in paragraph 5 of the Official Action, *Chadwick* is cited as allegedly teaching the making of a ceramic dental restoration which includes mixing of a ceramic with a silicon polymer. However, even if the teachings of *Chadwick* were applied, in the manner suggested, the claimed invention would not result. Namely, neither *Brodkin et al.* nor *Chadwick* disclose or suggest the method as presently defined in amended claim 24. In other words, *Chadwick* fails to cure the deficiencies previously noted in connection with the teachings of *Brodkin et al.*

For at least the reasons noted above, reconsideration and withdrawal of the rejection is respectfully requested.

Newly presented claims 37-42 are directed to various additional aspects of the present invention. Since each of these newly presented claims depend either

directly, or indirectly, upon claim 24, these claims are also distinguishable over the applied prior art for at least the reasons noted above.

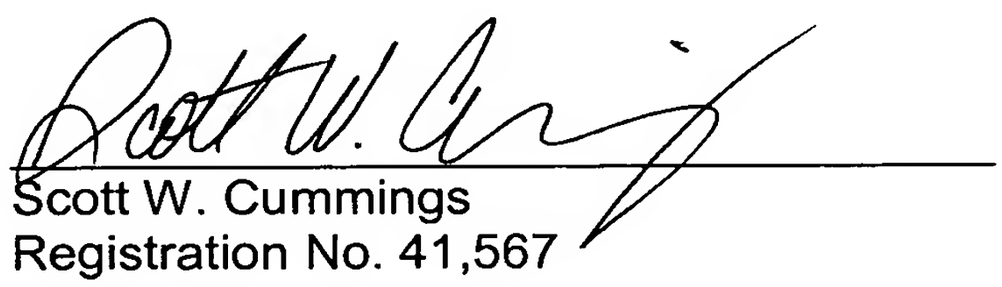
CONCLUSION

From the foregoing, further and favorable action in the form of a Notice of Allowance is earnestly solicited. Should the Examiner feel that any issues remain, it is requested that the undersigned be contacted so that any such issues may be adequately addressed and prosecution of the instant application expedited.

Respectfully submitted,

BUCHANAN INGERSOLL PC

Date: May 5, 2006

By: 
Scott W. Cummings
Registration No. 41,567

P.O. Box 1404
Alexandria, Virginia 22313-1404
(703) 836-6620